



US005867789A

# United States Patent [19]

Olds et al.

[11] Patent Number: 5,867,789

[45] Date of Patent: Feb. 2, 1999

[54] **METHOD AND SYSTEM FOR REAL-TIME CHANNEL MANAGEMENT IN A RADIO TELECOMMUNICATIONS SYSTEM**

[75] Inventors: **Keith Andrew Olds**, Mesa, Ariz.;  
**Gerald Joseph Davieau**, Eldersburg, Md.

[73] Assignee: **Motorola, Inc.**, Schaumburg, Ill.

[21] Appl. No.: **777,434**

[22] Filed: **Dec. 30, 1996**

[51] Int. Cl.<sup>6</sup> ..... **H04Q 7/30**

[52] U.S. Cl. .... **455/453; 455/12.1; 455/63; 455/452**

[58] **Field of Search** ..... 455/450, 452, 455/453, 62, 63, 442, 443, 446, 447, 448, 449, 509, 512, 12.1, 436

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*Primary Examiner*—Reinhard J. Eisenzopf

*Assistant Examiner*—Lester G. Kincaid

*Attorney, Agent, or Firm*—Frank J. Bogacz; Harold C. McGurk, IV

## [57] ABSTRACT

A channel management process (68) is performed by a parent base station (36) of a radio telecommunications system (20) that exchanges channel usage data with neighbor base stations (38) within its local group (34). When channel usage data indicates a channel assignment conflict, that conflict is resolved in the base station (22) having the lesser loading of the pair of conflicting base stations (22). Channel usage requests received by a base station (22) are prioritized and sequentially processed, channels (58) being assigned for inter-cell handoff requests, then intra-cell handoff requests after inter-cell handoff requests, even when that assignment creates a conflict, and then channels (58) being assigned to new call requests after handoff requests if that assignment does not create a conflict.

26 Claims, 8 Drawing Sheets

